



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

OCT 21 2009

REPLY TO THE ATTENTION OF:

AR-18J

Tony Sullins  
Field Supervisor  
Twin Cities Field Office  
U.S. Fish and Wildlife Service  
4101 American Boulevard West  
Bloomington, Minnesota 55424

Dear Mr. Sullins:

Pursuant to Section 7 of the Endangered Species Act (ESA), (16 U.S.C. Section 1531 et seq.) the U.S. Environmental Protection Agency, Region 5 has reviewed the biological information and analysis related to a Prevention of Significant Deterioration (PSD) permit for Sappi Cloquet, LLC (Sappi), to determine what impact there may be to any threatened or endangered species in the area around the proposed facility. The purpose of this letter is to seek concurrence from the U.S. Fish and Wildlife Service (FWS) on our determination that the proposed project is not likely to adversely affect any federally listed species in relation to the proposed air quality permit for Sappi.

**Project Description**

Sappi is an existing pulp and paper mill which uses the kraft process to make pulp from wood chips. The pulp is bleached and made into coated paper. Currently, the mill operates four boilers, including a chemical recovery boiler, to provide heating and process steam and to generate electricity.

Other sources of air emissions, besides the boilers, include the sources in the chemical recovery system. This includes a smelt dissolving tank and a lime kiln. The bleach plant sources include the chlorine dioxide plant and a bleach line. These sources are primarily sources of chlorine dioxide and chloroform emissions; the bleaching system is also a source of carbon monoxide and volatile organic compound emissions.

Other sources of particulate emissions, beside the boilers and chemical recovery sources, include the fuel house and fuel reclaim buildings as well as fugitive sources such as woodpiles and roadways.

The proposed project is the construction/installation and operation of a new paper machine and power boiler. The project also includes modification of the existing power

boiler #9 by adding NO<sub>x</sub> controls and an overfire air system; and the installation of a new cooling tower. The project involved netting under New Source Review and resulted in PSD review for PM2.5.

### **Action Area**

An action area of 3 km radius around the proposed facility was based on air quality modeling performed for the PSD permit and represents the significant impact for criteria pollutants.

### **List of Species**

According to FWS, gray wolf (federally threatened) and Canada lynx (federally threatened) could potentially be present within 3 km of this facility. This area is within the range of habitat for gray wolf in Minnesota, but is likely outside the primary range for Canada lynx in the State. Other than a confirmed record of gray wolf about 1.6 km from the facility, FWS did not have any specific information regarding the presence of these species in this area or any information about habitat quality, etc. Critical habitat is designated for both species in Minnesota, but the project area is outside of these areas.

The gray wolf (*Canis lupus*) has been identified by FWS as being the only endangered or threatened species that could potentially be present within the action area. Therefore, the gray wolf is the only species being considered in this consultation. Wolf packs usually live within specific territories, ranging in size from 50 square miles to more than 1,000 square miles depending on prey availability and seasonal prey movements. Northern Minnesota has the largest population of gray wolves in the lower 48 states. Wolves eat mainly deer and moose, but also feed on beavers and small animals such as snowshoe hare and occasionally feed on birds and other small animals.

### **ESA Effects and Air Quality Impacts Analysis**

To assess the air quality impacts of the proposed project on individual animals that may be present in the action area, the following analysis is provided. EPA conducted a scientific literature search of the impacts on the gray wolf from criteria pollutants and other heavy metal emissions. No information related to the gray wolf was found. Since there is potential for bioaccumulation of heavy metals through the food chain, a scientific literature search was also performed for the animal species that the gray wolf feeds on. No information was found linking impacts to small mammals from deposition of heavy metals in air pollution. Lacking information identifying species-specific effects associated with specific air pollutants, EPA is relying upon the general protectiveness of the PSD thresholds and the relative size of emissions as compared to background levels in completing its analysis.

Pursuant to PSD requirements, the source conducted air quality modeling for PM10 and PM2.5; no other pollutant levels met the threshold to require modeling. The PM10 and PM2.5 emissions from Sappi were evaluated using measured meteorological

data to calculate the breathable concentrations of pollutants at varying distances from the source. The first step in the PSD modeling process is to evaluate the source's impact on the surrounding area. In the PSD program, EPA has set a minimum ambient air concentration level for each criteria pollutant, called the Significant Impact Level (SIL). While SILs are specifically designed to protect human health, EPA is using SILs as a surrogate, lacking specific information related to the gray wolf. This correlation is likely valid for the large mammal species, such as the gray wolf.

If a facility's emissions for an individual pollutant are shown with modeling to be below the SIL, then the source's air quality impact is considered insignificant for that pollutant, and no further modeling is necessary to support the approval of the PSD permit application. Sappi's PM<sub>10</sub> and PM<sub>2.5</sub> impacts were found to be below the SIL.

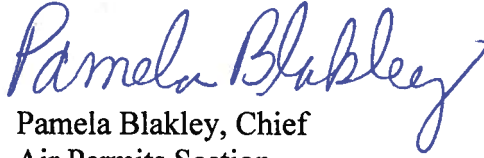
In addition, the PSD modeling process must verify that the National Ambient Air Quality Standards (NAAQS) are protected. In some cases, even though the PSD increments are not exceeded within a proposed source's significant impact area, the NAAQS could still be violated in the area. The NAAQS for PM<sub>10</sub> are 50 ug/m<sup>3</sup> on an annual average and 150 ug/m<sup>3</sup> on a 24-hour average. The NAAQS for PM<sub>2.5</sub> are 15 ug/m<sup>3</sup> on an annual average, and 35 ug/m<sup>3</sup> on a 24-hour average. Modeling for the NAAQS includes the PM emissions from the proposed source and from all nearby PM sources, new or existing, which might have an air quality impact in the area. Background PM<sub>10</sub> and PM<sub>2.5</sub> concentrations, obtained from local air quality monitors, are also added to the modeled totals, to account for distant sources which were not explicitly included in the modeling. The modeling showed that the area's total breathable PM concentrations would be below the PM NAAQS.

### **Conclusion/Determination**

The gray wolf, should they occur in the action area, is a transient species which could be present within the action area sporadically, probably while tracking prey. In addition, EPA has provided data regarding the air quality modeling conducted as part of the PSD permit application. The permitted emissions levels for this project are not expected to have significant air quality impacts. Moreover, the literature search conducted did not reveal any information suggesting sensitivities to air pollutant deposition.

Considering this analysis in its entirety, EPA concludes that the proposed construction and operation of this facility may affect, but is not likely to adversely affect, any of the threatened and endangered species. EPA respectfully requests FWS concurrence on this determination.

Sincerely,

A handwritten signature in blue ink that reads "Pamela Blakley". The signature is fluid and cursive, with the first name "Pamela" and last name "Blakley" clearly distinguishable.

Pamela Blakley, Chief  
Air Permits Section